

## What Fraction Am I?

### Brief Overview:

Students will experience fun with fractions in a Standards based hands-on unit. Students will identify fractions as parts of a whole, identify fraction relationships using a number line, and gain a working understanding of comparing fractions. Through a variety of formal and informal assessments, students will demonstrate an ability to identify and compare proper fractions in written, verbal, and game play activities.

### NCTM Content Standard/National Science Education Standard:

- Knowledge of Number Relationships: Students will describe, represent, or apply numbers or their relationships using mental strategies and paper/pencil.
- Compare, order, and describe fractions.
- Apply knowledge of fractions.
- Represent proper fractions of a single region using symbols, words, and models.
- Use denominators 6, 8, and 10.
- Read, write, or represent proper fractions of a set which has the same number of items as the denominator using symbols, words, and models.
- Find equivalent fractions.

### Grades/Level:

Grades 3-4

### Duration/Length:

Three lessons – 60 minutes per lesson

### Student Outcomes:

Students will read, write, and represent fractions as parts of a whole using symbols, words, and models.

### Materials and Resources:

- Pre-Assessment Worksheet, one per student, Student Resource 1.
- Pre-Assessment Answer Sheet, Teacher Resource 1.
- 4 Fresh Bananas (Pre-cut bananas invisibly by using needle poked through skin to cut one banana in  $\frac{1}{2}$ , one banana into  $\frac{1}{3}$ rd, and another banana into  $\frac{1}{4}$ th. Mark each banana secretly so teacher can identify banana. Leave one banana whole.)
- “Magic Banana Knife” (Break the blade off of plastic knife so that handle is left. Blade on knife will then be invisible.)
- 3 yard strip of masking tape with extra small strips.  
(Prepare floor number line by placing strip on open area of floor.  
Mark mid-point of line with small strip of masking tape.  
Mark beginning of number line with small piece of tape perpendicular to

line. Mark end of line with two small pieces of tape to create an arrow.  
Place a vertical strip of tape near end of line to represent the number 1.)

- Fraction Cards, Teacher Resource 2.
- Fraction Strips, Teacher Resource 3.
- Pre-Assessment Worksheet: Comparing Fractions, one per student, Student Resource 2.
- Two different colored plastic plates (1 of each color for each student)
- Scissors
- Rulers
- Permanent markers
- Extra copies of blank fraction circles
- Pre-Assessment Answer Sheet: Comparing Fractions, Teacher Resource 4.
- Overhead fraction circles, Teacher Resource 5.
- Fraction Graphs, one per student, Student Resource 3.
- Fraction Graphs Answer Sheet, Teacher Resource 6.
- Three Equal Fractions Game Board, one per student, Student Resource 4.
- Fractional Equivalent Sheet, one per pair of students, Student Resource 5.
- Three Equal Fractions Game Answer Sheet, Teacher Resource 7.
- Fraction Dice – one cube dice per pair of students:  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$ ,  $\frac{1}{5}$ ,  $\frac{1}{6}$ , and  $\frac{1}{8}$ . (May be created by writing fractions on blank cubes.)
- Final Assessment, one per student, Student Resource 6.
- Final Assessment Answer Sheet, Teacher Resource 8.
- The Hershey's Milk Chocolate Fractions Book. By Jerry Pallotta.
- New York: First Scholastic, 1999.
- Skittles Riddles Math. By Barbieri McGrath. Watertown, MA: Charlesbridge Publishing, 2000, p 8 -15.

## **Development/Procedures:**

### **Lesson 1**

**Pre-assessment** - Determine each student's current knowledge of fractions.

- Distribute Pre-assessment Worksheet to each student– Student Resource 1.
- Read directions to students and confirm understanding of instructions.
- Allow students approximately 15 minutes to complete pre-assessment.
- Review answers with class using Teacher Resource 1.
- Informally assess individual and groups' knowledge of fractions.

### **Launch -**

Show students a banana and explain to students that the banana can be cut in various fractional parts with a "Magic Banana Knife". Pick various students one at a time to "cut" one banana in half, another banana in thirds, and the final fourths with the "Magic Banana Knife". As each student prepares to "cut" the banana ask the following questions:

- "If the banana were cut in that location, would the banana be cut in half?"

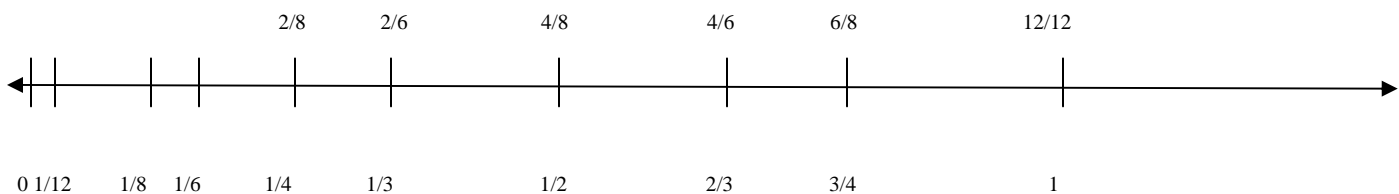
- “How many pieces will I get?”
- Repeat the process using bananas sliced into third and fourths. Once the appropriate spot has been located, have a student hold the banana while you proceed to “cut” the banana in half. Have the student open the banana and show the class that the banana has been cut in the appropriate places for the given fraction.

### Teacher Facilitation

- Review concept of whole numbers as fractional parts of a whole set.
- Read The Hershey’s Milk Chocolate Fractions Book by Jerry Pallotta, to re-enforce students’ understanding of the concept of fractions.
- Explain to students that fractions can be used to describe the length of an object without a ruler. However, to understand the length, they must have an understanding of where the fraction would be located on a number line.

### Student Application - Number Line Fraction Placement Activity

- Gather students in large standing oval around masking tape number line.
- Give each student a fraction flash card one at a time (Teacher Resource 2).
- Each student in turn will place their fraction card in approximate location on a number line.
- As students prepare to place their card, ask “Is that a large or small fraction?”  
“Will it be closer to 0,  $\frac{1}{2}$ , or 1?”  
If a student is having difficulty placing the fraction, compare the given fraction to a whole pizza to illustrate the fractions relationship to a whole or half a pizza.
- Students will gain a relational sense of value by observing placement of fractions.
- Students will identify the value of the following fractions:  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{2}{3}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  $\frac{1}{12}$ ,  $\frac{1}{6}$ ,  $\frac{2}{6}$ ,  $\frac{4}{6}$ ,  $\frac{6}{6}$ ,  $\frac{6}{12}$ ,  $\frac{1}{8}$ ,  $\frac{2}{8}$ ,  $\frac{4}{8}$ ,  $\frac{6}{8}$ , and  $\frac{12}{12}$ . See Teacher Resource 3.



### Embedded Assessment

- Informally assess each student’s understanding of fraction relationships.

### Reteaching

- Draw a table on the board with three columns labeled “Fractions Closest to 0”; “Fractions Closest to  $\frac{1}{2}$ ”; and “Fractions Closest to 1”.

Fractions Closest to 0	Fractions Closest to $\frac{1}{2}$	Fractions Closest to 1

- Students will understand that when comparing fractions the larger the denominator the closer to zero the fraction is when the numerators are one or equal.

## Lesson 2

**Pre-assessment** - Determine student's knowledge of fraction comparisons.

- Distribute Pre-assessment Worksheet to each student– Student Resource 2.
- Read directions to students and confirm understanding of instructions.  
Students will shade circles to represent the various fractions and then compare fractions using “greater than” or “less than”.
- Allow students approximately 10 minutes to complete the pre-assessment.
- Review answers with class using Teacher Resource 4.

## Embedded Assessment

- Informally assess individual and group's relational knowledge of fractions.

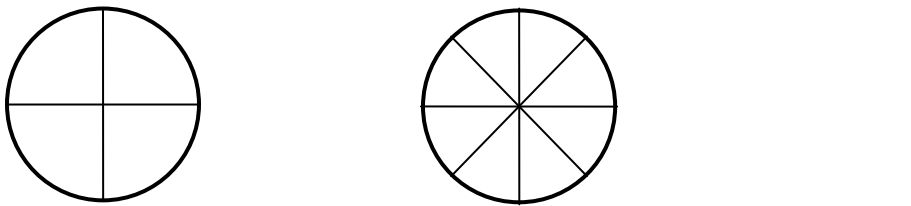
## Launch

- Read pages 8-15 in Skittles Riddles Math by Barbieri McGrath to introduce students to the concept “greater than” and “less than” fractions.
- Show students the plastic plate fraction circle and demonstrate how to make it.
- Use the ruler to find the center point of each plate and draw a line with a marker from the edge of the plate to the point.
- Cut on the line to the center point. Do this on both plates.
- Put both plates together at the cut with one color in the front and the other in the back. Plates should be able to easily slide over each other to show differing amounts of color.
- Show students how to use the fraction plate to show various fractions.
- Ask students to position plates to illustrate the following fractions:
  - ❖  $\frac{1}{2}$  circle in one color and  $\frac{1}{2}$  is the other color,
  - ❖  $\frac{1}{4}$  of a whole circle one color and  $\frac{3}{4}$  of the circle is the other color.
  - ❖  $\frac{1}{3}$  of whole circle in one color and  $\frac{2}{3}$  of the circle in the other color.
  - ❖ Ask students which fraction is the largest and which is the smallest.

### Teacher Facilitation

- Using the fraction circles on the overhead, demonstrate how to identify the fractional parts of the circle represented by each color..
- Use a circle fraction divided into fourths as an example.
- Explain that there are 4 parts in the circle. If 3 of the parts are shaded, then the fraction is  $\frac{3}{4}$ .
- Remind students that when writing a fraction, the total number of parts is the denominator and the numerator is the number of parts shaded.
- Using the overhead, display two circles divided into ten equal parts. Place them beside each other. Color or shade  $\frac{3}{10}$  of the circle on the left and  $\frac{5}{10}$  of the circle on the right.
- Ask students to identify the fraction that represents the shaded area for the circle on the left and write it under the circle. Then have the students identify the fraction that represents the shaded area. for the circle on the right and write it under the circle.
- Ask students to compare the 2 circles and identify which is greater.
- When the correct answer is given, write the appropriate symbol between the 2 circles. (Answer: circle on the right is greater than the circle on the left).
- Ask students to explain how they came to that conclusion. (Answer: More parts are shaded, so it is a larger fraction).
- Remind students that if the numerator is much smaller than the denominator, then it is a small fraction. If the denominator is double the amount of the numerator, then the fraction is near half. If the numerator is very close to the denominator, then it is almost a whole number.
- Write the fractions  $\frac{1}{4}$  and  $\frac{1}{8}$  on the board and ask students which fraction is larger.
- As the students give the answer, draw a picture illustrating the fractions on the board and then ask the students to compare the fractions again.

Example:



**Student Application** - Students will compare circle fractions and identify which is greater than and less than.

- Give each student a copy of the fraction circles and a piece of blank paper (Teacher Resource 5).
- On the board, make two columns labeled **A** and **B**. Under each column, make a list of fractions for the students to compare.
- Have students work together in pairs. Identify one student as **A** and the other as **B**. The **A** students will illustrate on fractions from column **A** and the **B** students will illustrate on fractions in column **B**.

- Students will make the fractions on their fraction circles by shading in the appropriate parts and then compare the fractions using ***greater than*** or ***less than***.
- On the blank paper, the students will write their names and the date at the top of the paper. They will also write the fractions in columns **A** and **B** and identify which is ***greater than*** ( $>$ ) or ***less than*** ( $<$ ) the other by using the appropriate symbol.

Example:

Name:		Date:
A	< or >	B
1. $\frac{1}{3}$	$>$	$\frac{1}{8}$
2.		
3.		
4.		
5.		

#### Embedded Assessment -

- Assess individual and group's understanding of "greater than" and "less than" fraction relationships. Re-teach or individually instruct any students as needed.

### Lesson 3

#### Teacher Facilitation

- Ask students if they have any questions about the fraction concepts discussed in the previous two lessons.
- Review vocabulary and concept that fractions represent a part(s) of a whole number or set.
- Review numerator and denominator identification.
- Review fractional relationships including fractions that are greater than, less than, or equal (equivalent).

#### Student Application

- Fraction Graph Worksheet, Student Resource 3.
  - ❖ Students will complete worksheet in approximately 15 minutes.
  - ❖ Review answers with students using Teacher Resource 6.
- Three Equal Fractions Game, Student Resource 4.
  - ❖ Students will play Fractions Game using one fraction dice, a game board each, and the Fractional Equivalent Sheet, Student Resource 5.

- ❖ Assist students with equivalent fraction identification using Teacher Resource 7.

### **Embedded Assessment**

- Informally assess student's understanding of fractions and re-teach concepts as needed before Final Assessment.

### **Summative Assessment:**

- Students will complete a comprehensive Final Assessment, Student Resource 6.
- The teacher will correct each student's Final Assessment using Teacher Resource 8.

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## **Appendix A: Teacher Resources**

- Pre-Assessment Answer Sheet, Teacher Resource 1.
- Fraction Cards, Teacher Resource 2.
- Fraction Strips, Teacher Resource 3.
- Pre-Assessment Answer Sheet: Comparing Fractions, Teacher Resource 4.
- Overhead fraction circles, Teacher Resource 5.
- Fraction Graphs Answer Sheet, Teacher Resource 6.
- Three Equal Fractions Game Answer Sheet, Teacher Resource 7.
- Final Assessment Answer Sheet, Teacher Resource 8.

## **Appendix B: Student Resources**

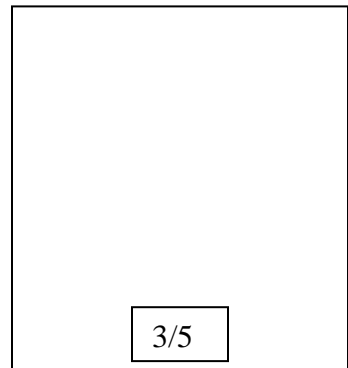
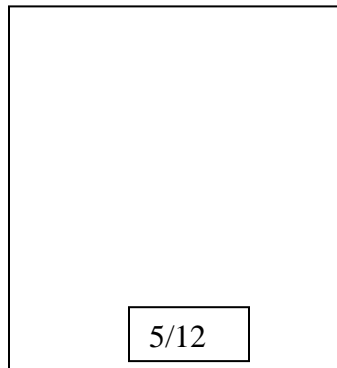
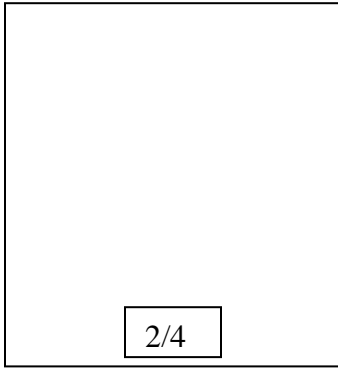
- Pre-Assessment Worksheet, one per student, Student Resource 1.
- Pre-Assessment Worksheet: Comparing Fractions, one per student, Student Resource 2.
- Fraction Graphs, one per student, Student Resource 3.
- Three Equal Fractions Game Board, one per student, Student Resource 4.
- Fractional Equivalent Sheet, one per pair of students, Student Resource 5.
- Final Assessment, one per student, Student Resource 6.

# Fraction Pre-Assessment

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Draw a picture showing each fraction.



2. Describe how one of your fraction picture shows the fraction.

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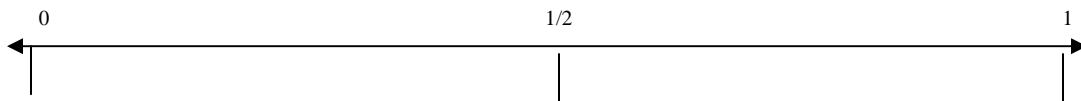


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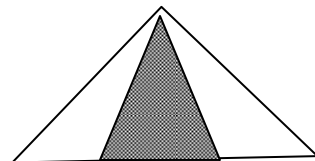
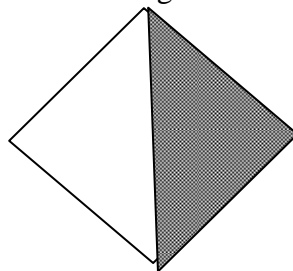
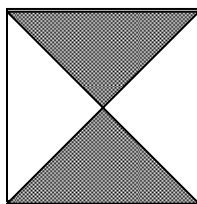


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3. Place these fractions on the number line:  $\frac{1}{3}$ ,  $\frac{5}{7}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ ,  $\frac{1}{10}$ , and  $\frac{6}{12}$ .



4. Write the fraction that shows the shaded region.





Pre-Assessment

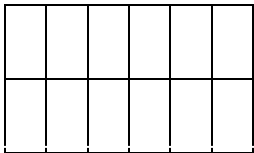
Comparing Fractions

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Directions:**

Shade the table to match the fraction below it. Compare the fractions as being “*greater than*” (<) or “*less than*” (>) by writing the appropriate symbol between the tables.

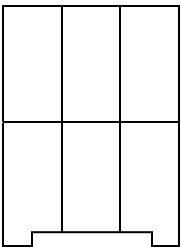


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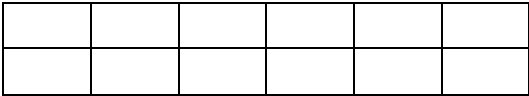


**2/6**



**2/3**

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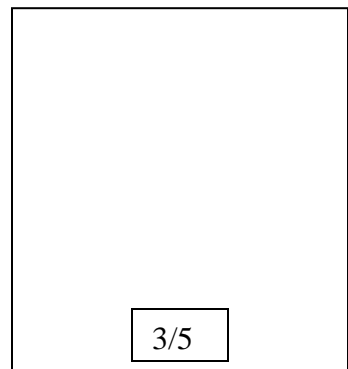
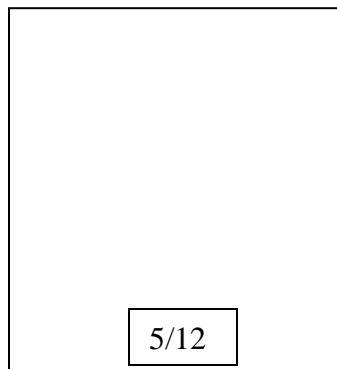
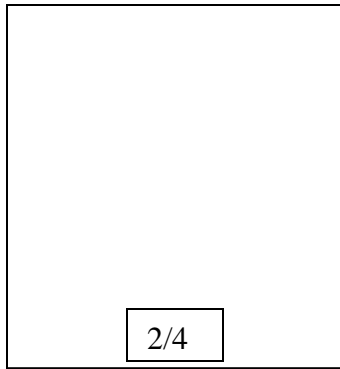
**3/4**

# Fraction Pre-Assessment

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Draw a picture showing each fraction.



2. Describe how one of your fraction pictures shows the fraction.

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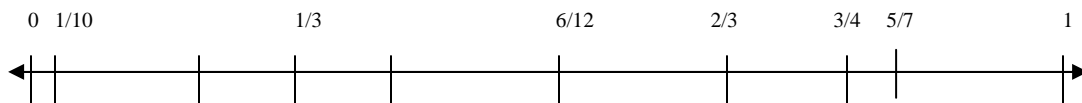


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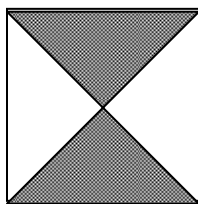


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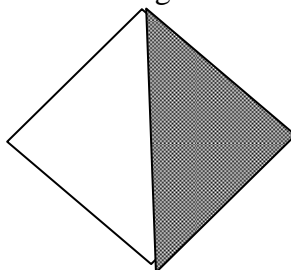
3. Place these fractions on the number line:  $\frac{1}{3}$ ,  $\frac{5}{7}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ ,  $\frac{1}{10}$ , and  $\frac{6}{12}$ .



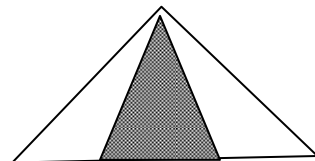
4. Write the fraction that shows the shaded region.



$\frac{2}{4} = \frac{1}{2}$



$\frac{1}{2}$



$\frac{1}{3}$

<b>Fraction Cards</b>	<b><math>1/3</math></b>	<b><math>2/3</math></b>
<b><math>3/4</math></b>	<b><math>1/12</math></b>	<b><math>1/6</math></b>

**6/12**

**1/8**

**2/8**

**6/8**

**12/12**

**2/6**

**4/6**

**1/2**

**6/6**

**4/8**

**1/4**

**11/12**

Pre-Assessment

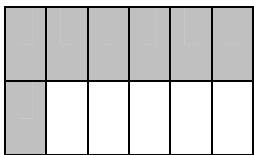
Comparing Fractions

Name: \_\_\_\_\_

Date: \_\_\_\_\_

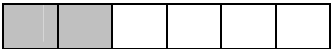
Directions:

Shade the table to match the fraction below it. Compare the fractions as being “*greater than*” (<) or “*less than*” (>) by writing the appropriate symbol between the tables.

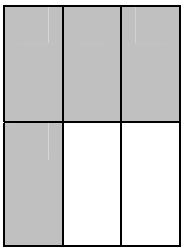


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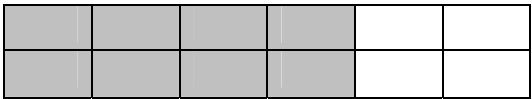


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2/3

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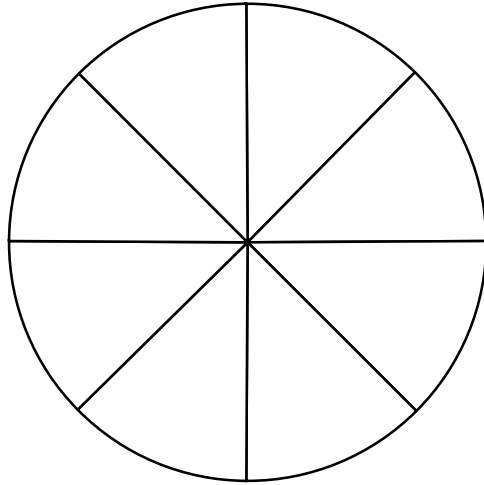
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## THREE EQUAL FRACTIONS IN LINE: ANSWER KEY

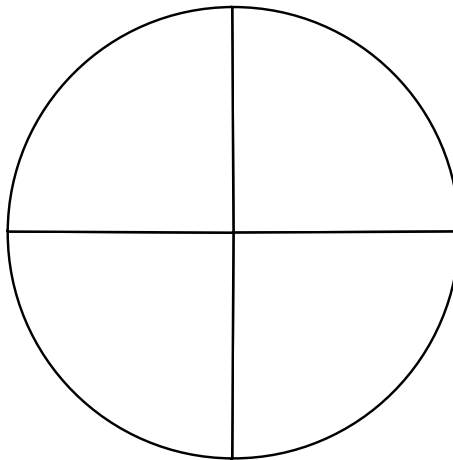
Each player rolls the fraction dice on their turn. Find a square that has a fraction that equals your roll when it is reduced to its simplest form. Use the fraction grid to help you identify the equivalent fractions. There are two groups of three equivalent fractions for each fraction on the dice:  $1/2$ ,  $1/3$ ,  $1/4$ ,  $1/5$ ,  $1/6$ , and  $1/8^{\text{th}}$ . The first player to get three equal fractions in a line wins.

$\frac{10}{20} = \frac{1}{2}$	$\frac{7}{56} = \frac{1}{8}$	$\frac{5}{40} = \frac{1}{8}$	$\frac{6}{48} = \frac{1}{8}$	$\frac{4}{16} = \frac{1}{4}$	$\frac{5}{25} = \frac{1}{5}$
$\frac{3}{6} = \frac{1}{2}$	$\frac{2}{6} = \frac{1}{3}$	$\frac{5}{15} = \frac{1}{3}$	$\frac{3}{9} = \frac{1}{3}$	$\frac{7}{28} = \frac{1}{4}$	$\frac{6}{30} = \frac{1}{5}$
$\frac{4}{8} = \frac{1}{2}$	$\frac{6}{36} = \frac{1}{6}$	$\frac{7}{42} = \frac{1}{6}$	$\frac{5}{30} = \frac{1}{6}$	$\frac{5}{20} = \frac{1}{4}$	$\frac{8}{40} = \frac{1}{5}$
$\frac{3}{12} = \frac{1}{4}$	$\frac{2}{16} = \frac{1}{8}$	$\frac{8}{16} = \frac{1}{2}$	$\frac{5}{10} = \frac{1}{2}$	$\frac{12}{24} = \frac{1}{2}$	$\frac{4}{12} = \frac{1}{3}$
$\frac{2}{8} = \frac{1}{4}$	$\frac{4}{32} = \frac{1}{8}$	$\frac{2}{12} = \frac{1}{6}$	$\frac{3}{18} = \frac{1}{6}$	$\frac{4}{24} = \frac{1}{6}$	$\frac{10}{30} = \frac{1}{3}$
$\frac{6}{24} = \frac{1}{4}$	$\frac{3}{24} = \frac{1}{8}$	$\frac{3}{15} = \frac{1}{5}$	$\frac{2}{10} = \frac{1}{5}$	$\frac{4}{20} = \frac{1}{5}$	$\frac{6}{18} = \frac{1}{3}$

## Eighths

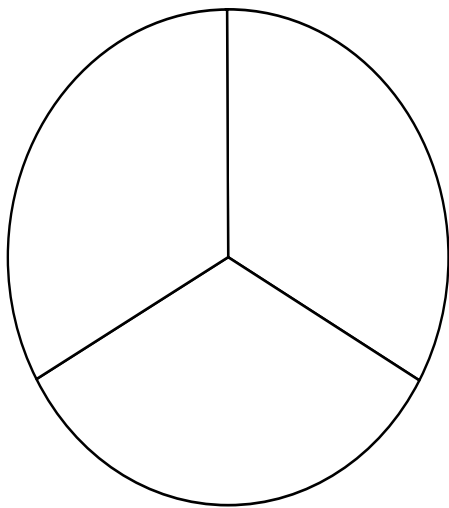


## Fourths

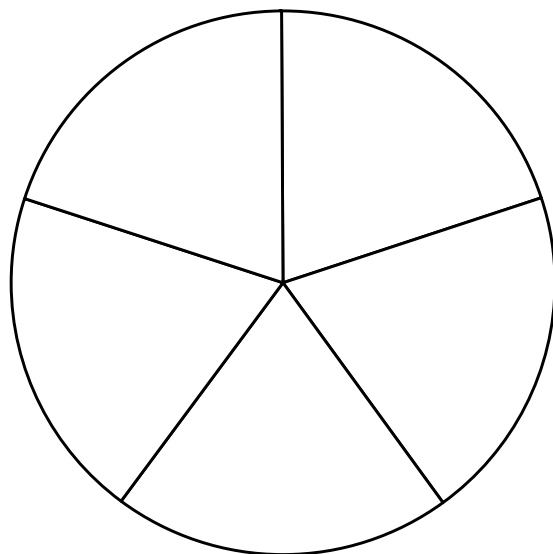




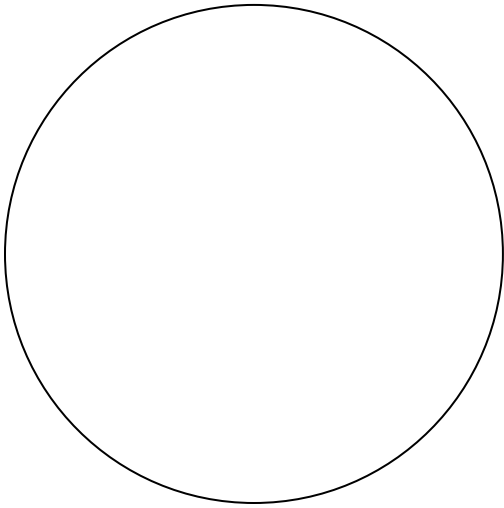
**Thirds**



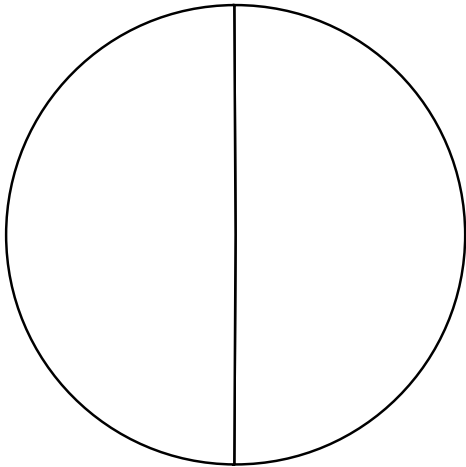
**Fifths**



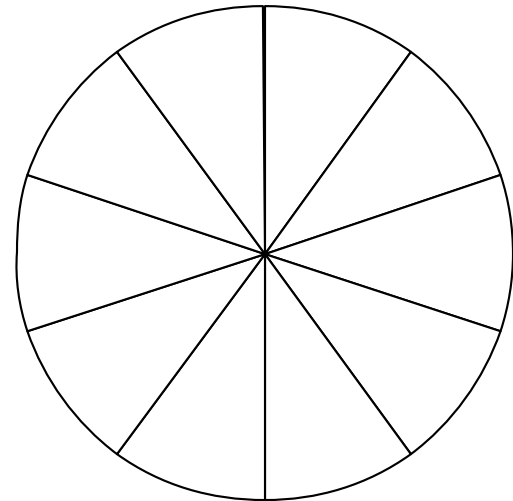
**Whole**



**Half**



**Tenths**



What Fraction Am I?

### Teacher Resource 3

1/4			1/4			1/4			1/4		
1/3				1/3				1/3			
1/2						1/2					
1/6		1/6		1/6		1/6		1/6		1/6	
1/8		1/8		1/8		1/8		1/8		1/8	
1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12
2/3				2/3				2/3			
3/4			3/4			3/4			3/4		
1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12
6/6		6/6		6/6		6/6		6/6		6/6	
6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12
1/5		1/5		1/5		1/5		1/5		1/5	

Fraction Final Assessment

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Circle the letter of the correct answer in questions 1-3.

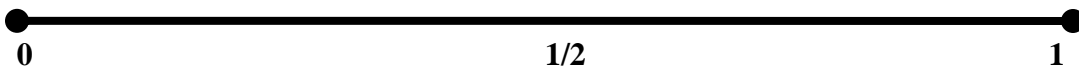
1. The numerator shows:
  - a. the parts of the whole represented.
  - b. the number of parts in a whole.
  - c. one whole set.
  - d. a point on a number line.
2. The denominator is:
  - a. the parts of the whole represented.
  - b. the number of parts in a whole.
  - c. one whole set.
  - d. a point on a number line.
3. Equivalent fractions are:
  - a. less than 1.
  - b. greater than 1.
  - c. equal in value.
  - d. equal to half.

4. Five boys are jumping on a trampoline.  
Two boys fall off and bump their heads.

What fractional part of the group of boys is still on the trampoline? \_\_\_\_\_

What fractional part of the group of boys is not on the trampoline? \_\_\_\_\_

5. Write the following fractions on the number line:  $\frac{1}{3}$ ,  $\frac{5}{7}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ ,  $\frac{1}{10}$ ,  $\frac{6}{12}$



6. Sam has a chocolate bar with 12 squares.  
He gives Sally  $\frac{4}{12}$  ( $\frac{1}{3}$ ) of the chocolate bar.  
How much of the chocolate bar does Sam have left? \_\_\_\_\_

Draw a picture and write a brief explanation on how you got your answer.

Explain your answer:



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7. If Sam gave Sally  $\frac{6}{12}$  of the chocolate bar, what would be the equivalent fraction?  
\_\_\_\_\_

8. Hunter cut his pizza into 10 slices. He gave  $\frac{3}{10}$  of the pizza to Baxter and  $\frac{2}{10}$  of the pizza to Clayton.

Who has more pizza? \_\_\_\_\_

Draw a picture and explain your answer.



Explain your answer:

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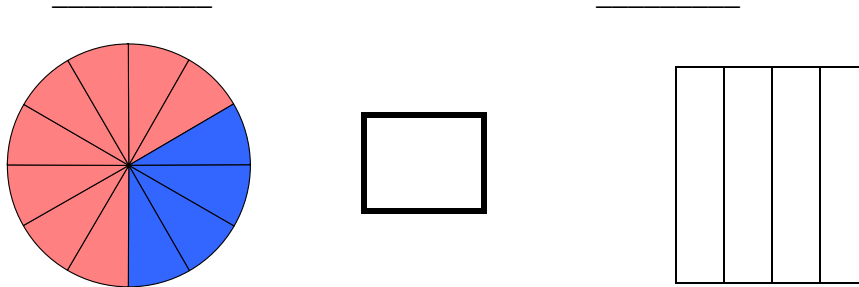
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9. Write the fraction that represents the shaded part of the circle on the line above it. Identify which fraction is greater than (>) or less than (<) the other fraction. Write the appropriate symbol in the box between the fraction circles.



10. Write the equivalent fraction next to each fraction.

$$\frac{5}{10} = \underline{\hspace{2cm}}$$

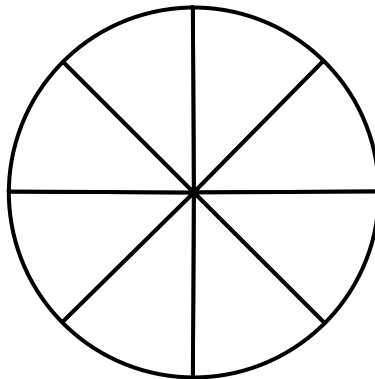
$$\frac{2}{6} = \underline{\hspace{2cm}}$$

$$\frac{8}{12} = \underline{\hspace{2cm}}$$

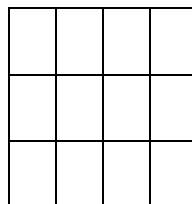
$$\frac{4}{10} = \underline{\hspace{2cm}}$$

11. Using the fraction circle below, show the fraction indicated by shading in the appropriate parts.

**$\frac{5}{8}$**



12. Shade  $\frac{1}{3}$  of the table.



13. Compare the fractions using greater than (>) or less than (<).

$$\frac{3}{4} \quad \square \quad \frac{7}{12}$$

Explain your answer.

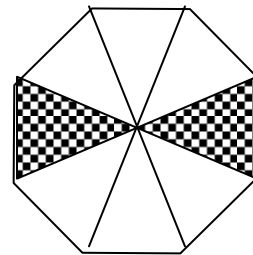
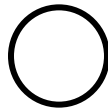
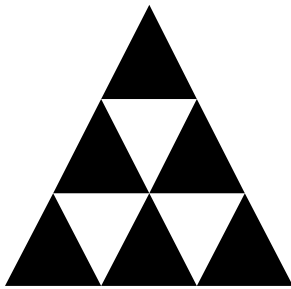
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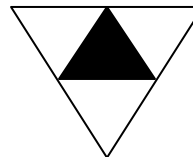
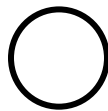
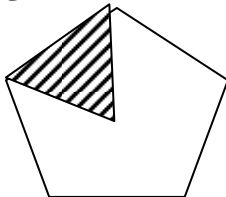
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14. Write the fraction that is shaded in each figure below the shape. Identify which is greater than (>) or less than (<) and write the answer in the circle.



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15. Write the fraction that is shaded in each figure below the shape. Identify which is greater than (>) or less than (<) and write the answer in the circle.



## Fraction Final Assessment

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Circle the letter of the correct answer in questions 1-3.

1. The numerator shows:

- a. the parts of the whole represented.
- b. the number of parts in a whole.
- c. one whole set.
- d. a point on a number line.

2. The denominator is:

- a. the parts of the whole represented.
- b. the number of parts in a whole.
- c. one whole set.
- d. a point on a number line.

3. Equivalent fractions are:

- a. less than 1.
- b. greater than 1.
- c. equal in value.
- d. equal to half.

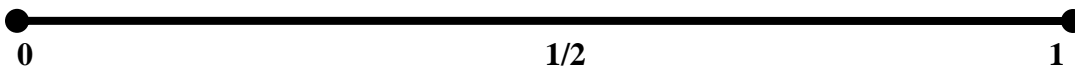
4. Five boys are jumping on a trampoline.

Two boys fall off and bump their heads.

What fractional part of the group of boys is still on the trampoline? 3/5

What fractional part of the group of boys is not on the trampoline? 2/5

5. Write the following fractions on the number line:  $\frac{1}{3}$ ,  $\frac{5}{7}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ ,  $\frac{1}{10}$ ,  $\frac{6}{12}$





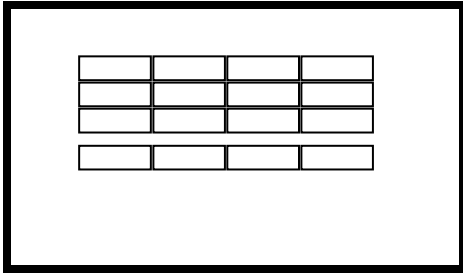
6. Sam has a chocolate bar with 12 squares.

He gives Sally  $\frac{4}{12}$  ( $\frac{1}{3}$ ) of the chocolate bar.

How much of the chocolate bar does Sam have left?  $\frac{8}{12}$  or  $\frac{2}{3}$

Draw a picture and write a brief explanation on how you got your answer.

Explain your answer:



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7. If Sam gave Sally  $\frac{6}{12}$  of the chocolate bar, what would be the equivalent fraction?

$\frac{6}{12} = \frac{1}{2}$

8. Hunter cut his pizza into 10 slices. He gave  $\frac{3}{10}$  of the pizza to Baxter and  $\frac{2}{10}$  of the pizza to Clayton.

Who has more pizza? Hunter  $\frac{5}{10} = \frac{1}{2}$

Draw a picture and explain your answer.



Explain your answer:

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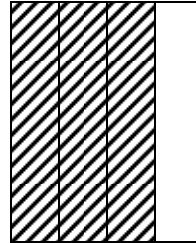
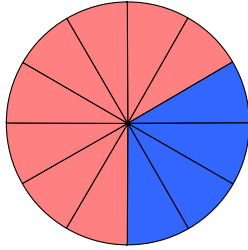
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9. Write the fraction that represents the shaded part of the circle on the line above it. Identify which fraction is greater than (>) or less than (<) the other fraction. Write the appropriate symbol in the box between the fraction circles.

$$\underline{\quad} \frac{8}{12} = \underline{\quad} \frac{4}{6} = \underline{\quad} \frac{2}{3} \underline{\quad}$$

$$\underline{\quad} \frac{3}{4} = \underline{\quad}$$



10. Write the equivalent fraction next to each fraction.

$$\frac{5}{10} = \underline{\quad} \frac{1}{2} \underline{\quad}$$

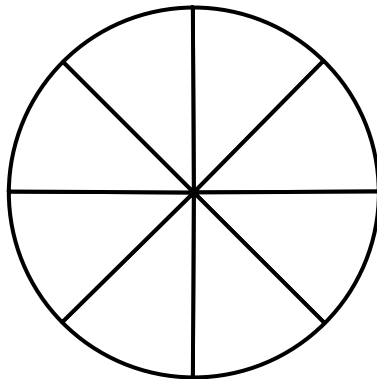
$$\frac{2}{6} = \underline{\quad} \frac{1}{3} \underline{\quad}$$

$$\frac{8}{12} = \underline{\quad} \frac{4}{6} = \underline{\quad} \frac{2}{3} \underline{\quad}$$

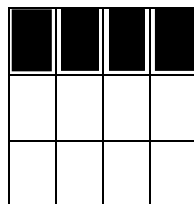
$$\frac{4}{10} = \underline{\quad} \frac{2}{5} = \underline{\quad}$$

11. Using the fraction circle below, show the fraction indicated by shading in the appropriate parts.

$\frac{5}{8}$



12. Shade  $\frac{1}{3}$  of the table.



13. Compare the fractions using greater than (>) or less than (<).

$$\frac{3}{4} \quad \boxed{>} \quad \frac{7}{12}$$

Explain your answer.

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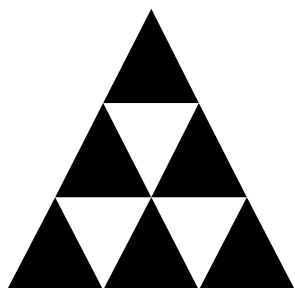


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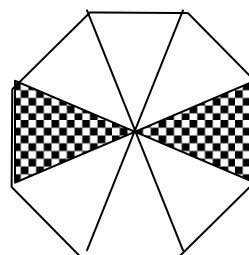
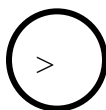


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14. Write the fraction that is shaded in each figure below the shape. Identify which is greater than (>) or less than (<) and write the answer in the circle.

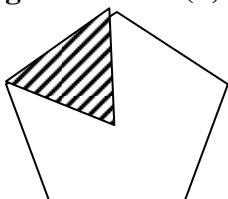


$$\frac{6}{9} = \frac{2}{3}$$

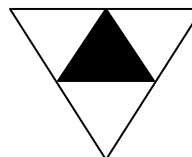
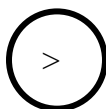


$$\frac{2}{8} = \frac{1}{4}$$

15. Write the fraction that is shaded in each figure below the shape. Identify which is greater than (>) or less than (<) and write the answer in the circle.



$$\frac{1}{5}$$



$$\frac{1}{4}$$

**FRACTIONAL**  
**EQUIVALENTS**

<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{5}</math></b>	<b><math>\frac{1}{6}</math></b>	<b><math>\frac{1}{8}</math></b>
$\frac{2}{4}$	$\frac{2}{6}$	$\frac{2}{8}$	$\frac{2}{10}$	$\frac{2}{12}$	$\frac{2}{16}$
$\frac{3}{6}$	$\frac{3}{9}$	$\frac{3}{12}$	$\frac{3}{15}$	$\frac{3}{18}$	$\frac{3}{24}$
$\frac{4}{8}$	$\frac{4}{12}$	$\frac{4}{16}$	$\frac{4}{20}$	$\frac{4}{24}$	$\frac{4}{32}$
$\frac{5}{10}$	$\frac{5}{15}$	$\frac{5}{20}$	$\frac{5}{25}$	$\frac{5}{30}$	$\frac{5}{40}$
$\frac{6}{12}$	$\frac{6}{18}$	$\frac{6}{24}$	$\frac{6}{30}$	$\frac{6}{36}$	$\frac{6}{48}$
$\frac{7}{14}$	$\frac{7}{21}$	$\frac{7}{28}$	$\frac{7}{35}$	$\frac{7}{42}$	$\frac{7}{56}$
$\frac{8}{16}$	$\frac{8}{24}$	$\frac{8}{32}$	$\frac{8}{40}$	$\frac{8}{48}$	$\frac{8}{64}$
$\frac{10}{20}$	$\frac{9}{18}$	$\frac{10}{40}$	$\frac{9}{45}$	$\frac{9}{54}$	$\frac{9}{72}$
$\frac{12}{24}$	$\frac{10}{30}$	$\frac{12}{48}$	$\frac{10}{50}$	$\frac{10}{60}$	$\frac{10}{80}$

## THREE EQUAL FRACTIONS IN THREE LINES

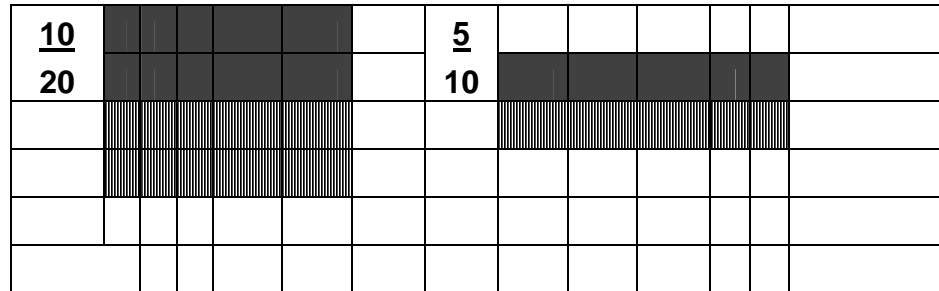
Each player rolls the fraction dice on their turn. Find a fraction that equals your roll when it is reduced to its simplest form. Cover one square on your game board per roll with chip/counter. Use the fraction grid to help identify equivalent fractions. with chip/counter. Use the fraction grid to help identify equivalent fractions.  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{1}{6}$ , and  $\frac{1}{8}$ th. Each group is vertical or horizontal, no diagonal lines. The first player to get three lines of three equal fractions in a line wins.

$\frac{10}{20}$	$\frac{7}{56}$	$\frac{5}{40}$	$\frac{6}{48}$	$\frac{4}{16}$	$\frac{5}{25}$
$\frac{3}{6}$	$\frac{2}{6}$	$\frac{5}{15}$	$\frac{3}{9}$	$\frac{7}{28}$	$\frac{6}{30}$
$\frac{4}{8}$	$\frac{6}{36}$	$\frac{7}{42}$	$\frac{5}{30}$	$\frac{5}{20}$	$\frac{8}{40}$
$\frac{3}{12}$	$\frac{2}{16}$	$\frac{8}{16}$	$\frac{5}{10}$	$\frac{12}{24}$	$\frac{4}{12}$
$\frac{2}{8}$	$\frac{4}{32}$	$\frac{2}{12}$	$\frac{3}{18}$	$\frac{4}{24}$	$\frac{10}{30}$
$\frac{6}{24}$	$\frac{3}{24}$	$\frac{3}{15}$	$\frac{2}{10}$	$\frac{4}{20}$	$\frac{6}{18}$

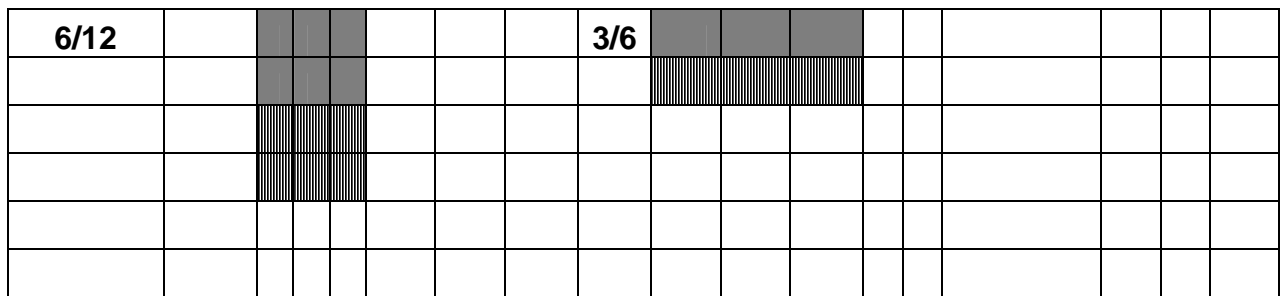
**FRACTION GRAPHS**

1. Color the numerators and denominators different colors. One square per numbers in fraction.
2. Divide the numerator and denominator by 2. Write the reduced fraction and color the new fraction. Repeat.

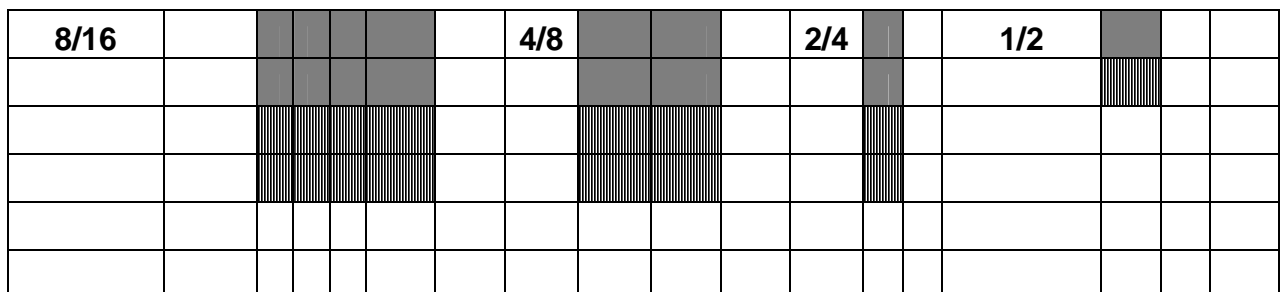
Example:



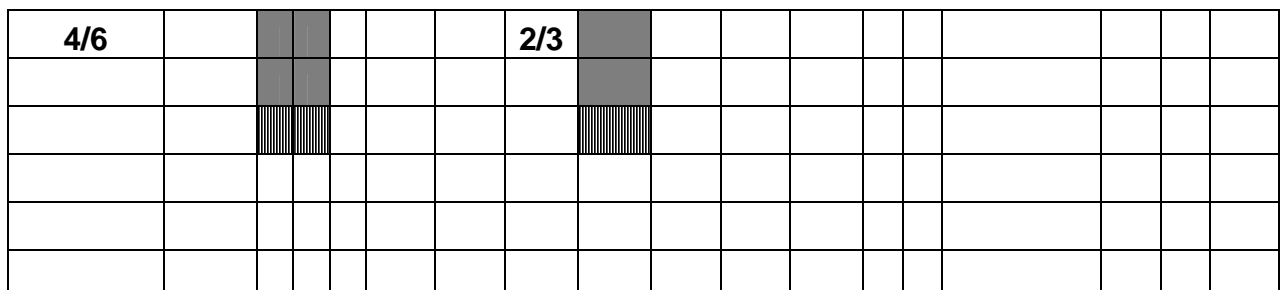
1.



2.



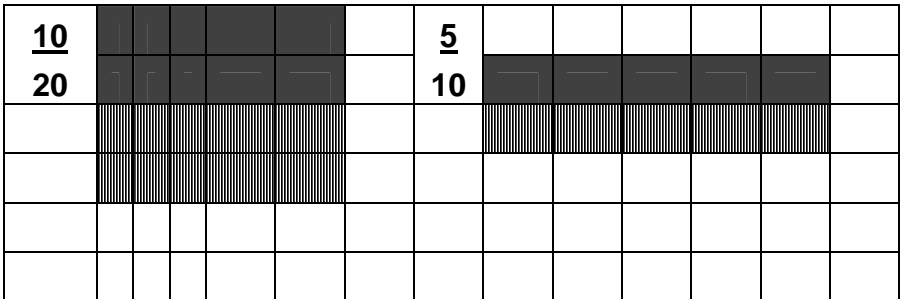
3.



## FRACTION GRAPHS

1. Color the numerators and denominators different colors. One square per numbers in fraction.
2. Divide the numerator and denominator by 2. Write the reduced fraction and color the new fraction. Repeat.

Example:



- [illegible]

